

**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C. §§1251 et seq.; the "CWA", and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

Citgo Petroleum Corp.  
385 Quincy Avenue  
East Braintree, MA 02184

is authorized to discharge from a facility located at

385 Quincy Avenue  
East Braintree, MA 02184

to receiving water named: the Weymouth Fore River (Basin Codes 70 and 74)

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on the date of signature.

This permit and the authorization to discharge expires at midnight five (5) years from the effective date.

This permit supersedes the permit issued on April 7, 1998.

This permit consists of 11 pages in Part I including effluent limitations, monitoring requirements, etc., and Attachment A (not provided electronically) and 35 pages in Part II which includes the General Conditions and Definitions.

Signed this 14<sup>th</sup> day of November, 2002

/Signature on file/

Linda M. Murphy, Director  
  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

Glenn Haas, Director  
Division of Watershed Management  
Department of Environmental Protection  
Commonwealth of Massachusetts  
Boston, MA

**A. Effluent Limitations And Monitoring Requirements (Continued)**

2.
  - a. There shall be no discharge of floating solids or visible foam.
  - b. The effluents shall not cause a visible oil sheen nor an objectionable discoloration of the receiving water.
  - c. The discharges either individually or in combination shall not cause violations of State water quality standards of the receiving water.
  - d. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to human health, aquatic life of the receiving water or which would impair the uses designated by its classification.
  - e. The discharge shall not impart color, taste, turbidity, toxicity, radioactivity or other properties which cause the receiving water to be unsuitable for the designated uses and characteristics ascribed to its use.
  - f. Notwithstanding specific conditions of this permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification unless in accordance with Massachusetts's Antidegradation Statutes and Regulations.
  - g. There shall be no discharge of tank bottom water or bilge water alone or in combination with storm water discharge or other wastewater unless specifically approved by U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection.
  - h. The permittee shall not add chemicals (i.e. disinfecting agents, detergents, emulsifiers, etc.) to the collection and treatment system without prior approval from EPA. Also, the permittee shall not add any "bioremedial agents including microbes" to the collection and treatment system without prior acceptance of EPA.
  - i. The permittee shall not discharge any sludge and/or bottom deposits from any storage tank, basin and/or diked area to the receiving water.

Examples of storage tanks and/or basins include, but are not limited to: primary catch basins, stilling basins, the oil & water [O/W] separator, observation basins with baffles, petroleum product storage tanks, baffled storage tanks collecting spills, and tank truck loading rack sumps.

- j. After twelve (12) months of storm water discharge and twelve (12) data sets, the permittee may request that the permit be modified for less stringent monitoring requirements. Alternatively, EPA may modify this permit in accordance with EPA regulations at 40 Code of Federal Regulations [CFR] §122.62 and §122.63 to incorporate more stringent effluent limitations, increase the frequency of monitoring, or impose additional sampling and/or analytical requirements.
  - k. Due to high concentration of Methyl Tertiary Butyl Ether (MTBE) in the stormwater effluent, the permittee is required to reduce MTBE concentration. It should modify its spill prevention plan by identifying sources of MTBE and taking preventive measures and corrective actions to minimize their discharge by Best Management Practices (BMPs) within six months of the effective date of the permit. This document should remain a part of Storm Water Pollution Prevention Plan (SWPPP).
3. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 CFR §122.42):
- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant (as defined at 40 CFR §122.2) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
    - (1) One hundred micrograms per liter (100 ug/L);
    - (2) Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or

- (4) Any other notification level established by the Director in accordance with 40 CFR §122.44(f).
  - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
    - (1) Five hundred micrograms per liter (500 ug/L);
    - (2) One milligram per liter (1 mg/L) for antimony;
    - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
    - (4) Any other notification level established by the Director in accordance with 40 CFR §122.44(f).
  - c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.
- 4. Monitoring for Total Suspended Solids (TSS), Oil & Grease, pH, Benzene, Ethylbenzene, Toluene, and total Xylenes (BTEXs) and Methyl Tertiary-Butyl Ether (MTBE) shown in Part I.A.1.a. will be done in accordance with the following sampling approaches :
  - a. Storm water runoff from significant storm events must be sampled for: TSS, Oil & Grease, and pH at frequencies specified in Part I.A.1 a; sample determinations for BTEX compounds and MTBE must be collected for every quarter. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inches of rainfall) storm event. Suitable size and type of samples will be collected in accordance with 40 CFR §136. A set of grab samples of the effluent will be collected in rapid succession within the first hour ("first flush") if there is a discharge or as soon as possible after the diked area(s) drainage and/or pumpout has started. Each set of samples will be analyzed for TSS, Oil & Grease, pH, BTEX compounds and MTBE as specified in Part I.A.1.a.
  - b. A negative report under Part I.A.1.a. shall be submitted for each month that there is no significant storm event and subsequently no discharge.

**Superscript Designations Used in Effluent Limitations And Monitoring Requirements PART I.1.a, and I.1.b. on pages 2 and 3.**

1. Sampling frequency of 2/month is defined as sampling of two (2) significant rainstorms in each calendar month. Sample frequency of 1/month is defined as a sampling of one (1) significant rainstorm in each calendar month.. Testing quarterly is defined as sampling of one (1) significant rainstorm every quarter. Separate aliquot samples shall be taken for the analysis of: MTBE, the BTEX compounds, oil & grease, and TSS. Quarterly sampling may be performed concurrently with monthly monitoring requirements. See PART I.A.4 for further sampling details.
2. For each day that storm water is discharged, submit the daily maximum and monthly average flows passing through the O/W separator.
3. Oil and Grease shall be analyzed in accordance with the Regional interim alternative test procedure: Test Method 1664; EPA Document No. EPA 821-B-94-004; Office of Water, Engineering And Analysis Division, Washington DC 20460.
- 4.a. The analysis for benzene, ethylbenzene, toluene or total xylenes must achieve a method detection limit of less than or equal to 2.5 ug/l. BTEX compounds can be analyzed using EPA's Method 602 under 40 CFR Part 136 with the addition of a xylene standard. Instrument calibration and the amount of quality control performed will be the same as for the other BTEX compounds.
- b. The permittee shall provide a copy of the laboratory data sheets for each BTEX, TPH and MTBE analysis giving the test method and the analytical method detection limit for each compound and /or constituent.
5. Petroleum Hydrocarbons can be analyzed using EPA's Method 418.1.
6. MTBE can be analyzed using EPA RCRA's method No. 8240.PART I

## 5. Hydrostatic Test

The permittee shall notify EPA and MADEP with respect to any proposed hydrostatic-test water discharge. Hydrostatic test water should not be discharged during the discharge of stormwater. At a minimum, six (6) representative samples shall be taken of the hydrostatic-test water: one (1) grab sample of the influent; three (3) grab samples of the hydrostatic-test water prior to discharge (in process); and two (2) serial-grab samples of the effluent, which after treatment through the O/W separator is discharged to the receiving water.

The influent grab sample shall be taken approximately midway through the fill segment of the hydrostatic-test procedure. The three (3) grab in-process samples which are representative of the hydrostatic-test water after depressurization shall be analyzed as noted below and results evaluated prior to discharge through the conveyance and discharge system. The hydrostatic-test water shall only be discharged if such analysis of the in-process samples indicates that after appropriate management and treatment, all permit conditions shall be met. The first serial-grab effluent sample shall be taken midway through the discharge; and the final effluent sample shall be taken at the end of the discharge after the O/W separator. These effluent samples are required to document that the effluent limits have been met at the point of discharge. These samples should provide adequate characterization of the influent, in-process and effluent hydrostatic-test water.

**These influent, in-process and effluent samples shall be analyzed for the following parameters:**

- a. Total Suspended Solids (TSS)
- b. Oil and Grease (O/G)
- c. Total Iron
- d. Chemical Oxygen Demand (COD)
- e. Dissolved Oxygen (DO)
- f. pH

All test results may be submitted in a report correspondence in stead of a DMR.

The hydrostatic-test water released from the tank(s), after treatment through the O/W separator, must satisfy all the effluent limitations and conditions of this permit. The surface of the O/W separator should be routinely observed to determine if there is any detectable increase in the separated oil layer to prevent inadvertent hydrocarbon release to the receiving water.

The permittee may initiate the hydrostatic-test in accordance with proposed procedures when these procedures have been approved (either written or verbal approval) by EPA and MADEP. Any changes to these procedures must be approved by EPA and MADEP prior to their implementation.

Should any NPDES permit discharge parameter or any other permit requirement be exceeded, the hydrostatic-test water transfer shall be halted immediately, followed by notification to EPA and MADEP of the exceedence. After the transfer project has been completed, the permittee shall submit a letter/report to EPA and MADEP, summarizing the results of the transfer. This report shall contain: the date(s) of hydrostatic-test water transfer; the volume of hydrostatic-test water transferred; and the analytically determined values of the discharge parameters.

## **B. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)**

The permittee shall review the Storm Water Pollution Prevention Plan (SWPPP) that was developed and implemented with the previous NPDES permit and update it if necessary **no later than 180 days after the permit's effective date**. Within 180 days of the permit's effective date, the permittee shall submit to EPA and MADEP a statement which certifies that the SWPPP has been updated and shall be implemented in accordance with its schedule and requirements. This certification shall be signed in accordance with Part II.D.2 (Signatory Requirements). The permittee shall maintain a copy of the SWPPP at the terminal and shall make the plan available to the Regional Administrator and Director and/or their designee, upon request.

The SWPPP plan requirements are intended to facilitate a process whereby the permittee thoroughly evaluates potential pollution sources at the terminal and selects and implements appropriate measures to prevent or control the discharge of pollutants in storm water runoff. The process involves the following four steps: (1) formation of a team of qualified facility personnel who will be responsible for preparing the SWPPP and assisting the terminal manager in its implementation; (2) assessment of potential storm water pollution sources; (3) selection and implementation of appropriate management practices and controls; and (4) periodic evaluation of the effectiveness of the plan to prevent storm water contamination and comply with the terms and conditions of the permit.

The SWPPP, when implemented, becomes a supporting element to any numerical effluent limitation by minimizing the discharge of pollutants through the proper operation of the facility. Consequently, the SWPPP is as equally enforceable as the numerical limits on the storm water discharge. All elements outlined in the Attachment A shall be addressed and incorporated into the facility's SWPPP.

### **C. MONITORING AND REPORTING**

Monitoring results obtained during the previous month shall be summarized for each calendar month and reported on separate Discharge Monitoring Report [DMR] Form(s) postmarked no later than the 15th day of the month following the completed reporting period. The first DMR Form(s) must be postmarked by the 21st day of the month following the effective date of the permit.

Signed and dated originals of these DMRs and **all** other reports required herein shall be submitted to the Director and MADEP at the following address:

U.S. Environmental Protection Agency  
Planning and Administration (SEW)  
P.O. Box 8127  
Boston, Massachusetts 02114

Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention  
Northeast Regional Office  
205 Lowell Street  
Wilmington, MA 01887

Signed and dated DMRs and reports required by this permit shall be submitted to MADEP at:

Massachusetts Department of Environmental Protection  
Division of Watershed Management  
627 Main Street  
Worcester, MA 01608



**D. STATE PERMIT CONDITIONS**

This NPDES Discharge Permit is issued jointly by the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the Massachusetts Department of Environmental Protection pursuant to M.G.L. Chap. 21, §43.

Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared invalid, illegal or otherwise issued in violation of State law, such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit, if adopted as a state permit, shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.



## PART I

Permit No. MA0004782

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### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 1.a. During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge treated storm water runoff from the diked areas and undiked areas and hydrostatic test water from Outfall Serial Number 001. Such discharge shall: (1) be limited and monitored by the permittee as specified below; and (2) not cause a violation of the water-quality standards of the receiving stream. Samples taken in compliance with the monitoring requirements specified below shall be taken at the following location: Outfall 001 after final treatment but prior to discharge into Weymouth Fore River.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Average Monthly</u> [in specified units]	<u>Maximum Daily</u>	<u>Measurement Frequency</u> <sup>1</sup>	<u>Sample Type</u>
Flow, GPM <sup>2</sup>	Report	1042	See subpt.-2	Av. Mn/Dly Max
Total Suspended Solids, (TSS)	30 mg/l	100 mg/l	2/month	Grab
Oil & Grease <sup>3</sup>	—	15 mg/l	2/month	Grab
pH, Standard Units		Report Without Limit	1/month	Grab
Volatile Organic Compounds <sup>4</sup>				
Benzene	—	500 ug/l	Quarterly	Grab
Ethylbenzene	—	Report Without Limit	Quarterly	Grab
Toluene	—	Report Without Limit	Quarterly	Grab
Total Xylenes ( 3 isomers )	—	Report Without Limit	Quarterly	Grab
Methyl Tertiary-Butyl Ether ( MTBE ) <sup>6</sup>	—	Report Without Limit	Quarterly	Grab

**\*\* See Page 4 for an Explanation of the Superscripts.**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

- 1.b. During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge treated groundwater from Outfall Serial Number 001. Such discharge shall: (1) be limited and monitored by the permittee as specified below; and (2) not cause a violation of the water-quality standards of the receiving stream. Samples taken in compliance with the monitoring requirements specified below shall be taken after bioremediation process but prior to discharge into the oil water separator.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Average Monthly</u> [in specified units]	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow, GPM	Report	25	Continuous	Recorder
Total Petroleum Hydrocarbon (TPH) <sup>5</sup>	—	5 mg/l	1/Month	Grab
Methyl Tertiary Butyl Ether <sup>6</sup> (MTBE)	—	100 ug/l	1/Month	Grab
Benzene	—	5 ug/l	1/Month	Grab
Total BTEX <sup>4</sup> (Benzene, Ethyl Benzene, Toluene and Xylenes)	—	100 ug/l	Quarterly	Grab

**\*\* See Page 4 for an Explanation of the Superscripts.**